

**Results.**— Ninety-eight patients included in the study. The average NIHSS at admission was  $9.09 \pm 6.43$ , the percentages of pathologies already known at the time of admission, leading to a risk of stroke were: hypertension 62%, diabetes: 30%, IRC: 4% FA 11%, Smoking (current or weaned) 14%. FIM score achieved at exit from hospital, averaging  $14 \pm 9.74$  days after the vascular event was  $94.66 \pm 33.18$  (median 110, max 126, min 18) and Rankin score of  $2.57 \pm 1.92$  (median 3). Bivariate history of hypertension, diabetes and CKD and the blood glucose and LDL cholesterol at admission had a significant influence on functional prognosis on hospital release. In multivariate analysis, only history of diabetes and IRC as well as NIHSS at admission and age were significantly correlated with the functional score at exit.

**Conclusion.**— Our study confirms the epidemiological characteristics of Caribbean patients who experienced a stroke: younger age, even distribution by sex, presence of metabolic syndrome, a higher vascular risk and a greater initial severity. Older age, the severity of the neurological score at admission, the presence among the antecedents at admission of chronic renal failure or diabetes, have a significant influence on the functional status of patients. After adjustment for confounding factors, in this series, the physical and biological parameters at admission (blood pressure, blood glucose, glycosylated hemoglobin, LDL cholesterol, BMI, waist circumference) do not significantly influence the functional prognosis.

<http://dx.doi.org/10.1016/j.rehab.2012.07.048>

CO39-005-e

### Validation of the French version of two standardized tools to assess motor function of paretic upper limb

E. Bürge<sup>a</sup>, D. Kupper<sup>b,\*</sup>, B. Leemann<sup>c</sup>, M. Badan<sup>c</sup>, A. Berchtold<sup>d</sup>

<sup>a</sup> Filière physiothérapie, haute école de santé, Genève, haute école spécialisée de Suisse Occidentale, Genève, 25, rue des Caroubiers, 1227 Carouge, Switzerland

<sup>b</sup> Worldergo, Reignier, Switzerland

<sup>c</sup> Hôpitaux universitaires de Genève, Genève, Switzerland

<sup>d</sup> Université de Lausanne, Lausanne, Switzerland

\*Corresponding author.

E-mail address: [elisabeth.burge@hesge.ch](mailto:elisabeth.burge@hesge.ch).

**Keywords:** Fugl Meyer Assessment; Wolf Motor Function Test; Cerebrovascular Accident; Upper extremity; Reliability; Minimal detectable change

**Objectives.**— Standardized and validated assessment tools are necessary in both clinical settings and research. The motor subscale of the Fugl Meyer Assessment (FMA-UE) and the Wolf Motor Function Test (WMFT) are two essential tools in the assessment of motor function of the paretic limb. The original English versions are valid and reliable. The study aims to validate an adapted French version of the WMFT with the French version of the FMA-UE as external criterion.

**Methods.**— We translated and adapted culturally the WMFT, and we completed the French protocol of the FMA-UE, translated by Prevost [1]. In a cross-sectional study, 16 therapists – trained in the application of both tests – applied them to the upper limb of 44 patients at inclusion, after 2 and 15 days. The application of the WMFT was filmed; thereby, we obtained two scores, one from the direct test application and one by viewing the videotape of the test application.

**Results.**— The final French versions of both protocols were approved by their original authors. The inter-rater reliability of the WMFT was very high, its internal consistency, test-retest reliability as well as its validity were good. The minimal detectable change of the functional capacity scale was less than 10% of the maximum score when scoring was performed while watching the videotape.

**Discussion.**— The process of cross-cultural validation allows proposing two useful tools for assessing motor function of paretic upper limb. The French version of WMFT is reliable and valid. The values of the reliability and validity correspond to those of the English version [2]. However, further studies are needed to check the WMFT's sensitivity to change.

### References

[1] Prevost, R., et al., Protocole d'évaluation de la fonction sensori-motrice: test de Fugl-Meyer, in La librairie de l'Université de Montréal; 1989. p. 54.

[2] Wolf S, et al. Assessing Wolf Motor Function Test as outcome measure for research in patients after stroke. *Stroke* 2001;32(7):1635–9.

<http://dx.doi.org/10.1016/j.rehab.2012.07.049>

CO39-006-e

### Validation of a comfort scale in stroke patients

C. Rogeau, F. Beaucamp, E. Allart, W. Daveluy, M. Rousseaux<sup>\*</sup>

Service de rééducation et convalescence neurologique, CHRU de Lille, hôpital Swynghedauw, rue André-Verhaghe, 59037 Lille, France

\*Corresponding author.

E-mail address: [carolinerogeau@Chru-Lille.Fr](mailto:carolinerogeau@Chru-Lille.Fr).

**Keywords:** Comfort; Discomfort; Quality of life; Stroke; Scale; Assessment  
**Objectives.**— Comfort is an important issue in physical and rehabilitation medicine. It is part of the quality of life but has the advantage to be more concrete. Stroke may cause many sources of discomfort, which assessment is important in activities of daily living. The objective of this study was to further validate a comfort scale in stroke patients.

**Patients and methods.**— This scale allows the assessment by the patient, through a Visual Analogic Scale (VAS), of his comfort in different postures and personal activities of daily living, but also of the severity of his impairments and their impact on comfort. Reliability, construct validity against functional status (MIF and Rankin Scale), quality of life (SF12), burden of care (VAS) and finally responsiveness between two assessments at 6-week intervals were studied in 62 patients who underwent a first stroke.

**Results.**— Assessment of comfort had a good test-retest and interrater reliability for the total score (ICC = 0.86 and 0.92) and considering item-by-item analysis (ICC = 0.67 and 0.99). Reliability of assessment of the severity of impairments and their impact on comfort was more moderate. A higher comfort level was linked with good functional status and quality of life and with a low burden of care ( $P < 0.05$ ). Comfort and FIM followed quite parallel trends.

**Discussion.**— The comfort scale in stroke patients has good properties of reliability and construct validity. It is an innovative tool that could be of value in the care of stroke patients by defining treatment objectives and modalities.

<http://dx.doi.org/10.1016/j.rehab.2012.07.050>

CO39-007-e

### Upper limb complex regional pain syndrome type 1 after stroke: Role of autonomic imbalance?

V. Lambert<sup>\*</sup>, A. Pathak, P. Marque, M. Labrune

Inserm U1048 équipe 81, service de MPR, CHU de Toulouse, avenue J.-Poulhès, 31059 Toulouse, France

\*Corresponding author.

E-mail address: [valerie.c.e@hotmail.fr](mailto:valerie.c.e@hotmail.fr).

**Keywords:** CPRS; Vegetative balance; Stroke

**Objectives.**— The period of a few months after a stroke is characterized by an imbalance in favor of sympathetic side. It was also during this period that emerges complications disrupting rehabilitation treatment. Among them, upper limb complex regional pain syndrome type 1 (CPRS) is common and have multiple risk factors [1]. Recently the role of autonomic imbalance has been identified from analysis of the heart rate variability [2]. However in the latter study, the study population was not about the post stroke and signal analysis was done while CPRS was already present. The main objective of this retrospective study was to investigate the link between the vegetative balance and the occurrence of algodystrophy after stroke.

**Method.**— Fifteen patients ( $54.2 \pm 4$  years) were included with a Holter-EKG performed 24 hours to  $35.3 \pm 5$  days of stroke and followed them to the 6th month. The endpoints were the SDNN (standard deviation of successive RR intervals) and LF/HF ratio analyzed on the nighttime.

**Results.**— Of the 15 patients enrolled, five showed a CPRS in the 6 months following their stroke. In the group “CPRS”, the results reflected a tendency to decrease in SDNN ( $55.4 \pm 7$  ms vs.  $71.7 \pm 7$  ms), and increased LF/HF ratio